

Form PTO-1449 (Modified)		U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 19036/37157	Serial No. 09/763,712
<b>INFORMATION DISCLOSURE STATEMENT</b>				Applicant Wakamiya	
(Use several sheets if necessary)				Filing Date Feb. 26, 2001	Group

**U.S. PATENT DOCUMENTS**

*Examiner Initials		Document Number	Issue Date	Name	Class	Subclass	Filing Date If Appropriate
DS	A1	5,270,199	12/14/93	Ezekowitz	435	240.2	

**FOREIGN PATENT DOCUMENTS**

*Examiner Initials		Document Number	Publication Date	Country	Class	Subclass	Translation	
							Yes	No
DS	B1	WO 89/01519	02/23/89	PCT				
DS	B2	Japanese Patent Publication No. 2-504581 (Based on WO 8901519)		JP			X (abstract only)	
DS	B3	Japanese Laid-Open Publication No. HEI-238683	09/16/97	JP			X (abstract only)	
	B4	WO 98/55614	12/10/98	PCT				

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, etc.)

DS	C1	Epstein, et. al., "The collectins in innate immunity," <i>Current Opinion in Immunology</i> , 8:29-35 (1996).
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EXAMINER	<i>DSelle</i>	DATE CONSIDERED	4/10/03
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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

<i>BS</i>	C2	Ezekowitz, R. A. B. et al., "A Human Mannose-binding Protein is an Acute-phase Reactant that Shares Sequence Homology with Other Vertebrate Lectins," <i>J. Exp. Med.</i> , 167:1034-1046 (March, 1988).
<i>BS</i>	C3	Ezekowitz, R. A. B. et al., "Mannose-binding protein and susceptibility to chronic hepatitis B infection," <i>The Lancet</i> , 348: 1396-1397 (November, 1996).
<i>BS</i>	C4	Fujita, T. "Complement Activation and Lectin Pathway," <i>Rinsho-Meneki</i> , 29(3): 405-410 (1997). (Japanese with English abstract translation)
<i>BS</i>	C5	Garred, et al., "Susceptibility to HIV infection and progression of AIDS in relation to variant alleles of mannose-binding lectin," <i>The Lancet</i> , 349:236-240 (January, 1997).
<i>BS</i>	C6	Kawai, T. et al., "Cloning and characterization of a cDNA encoding bovine mannan-binding protein," <i>Gene</i> , 186(2):161-165 (February, 1997).
<i>BS</i>	C7	Kurata, H., "Structure and Function of Mannan-Binding Proteins Isolated from Human Liver and Serum," <i>J. Biochem.</i> , 115(6):1148-1154 (1994).
<i>BS</i>	C8	Lim, B. L. et al., "Primary Structure of Bovine Collectin-43 (CL-43). Comparison with conglutinin and lung surfactant protein-D," <i>J. Biol. Chem.</i> , 269(16):11820-11824 (April, 1994).
<i>BS</i>	C9	Lipscombe, R. J. et al., "Mutations in the Human Mannose-Binding Gene: Frequencies in several population groups," <i>European Journal of Human Genetics</i> , 4(1): 13-19 (1996).
<i>BS</i>	C10	Lu, et al., "Purification, characterization and cDNA cloning of human lung surfactant protein D," <i>Biochem. J.</i> , 284: 795-802 (1992).
<i>BS</i>	C11	Malhotra et al., "Interaction of C1q receptor with lung surfactant protein A*," <i>Eur. J. Immun.</i> , 22: 1437-1445 (1992).
<i>BS</i>	C12	Malhotra et al., "Glycosylation changes of IgG associated with rheumatoid arthritis can activate complement via the mannose-binding protein," <i>Nature Medicine</i> , 1(3): 237-243 (March, 1995).

EXAMINER <i>D. Sullivan</i>	DATE CONSIDERED <i>4/18/03</i>
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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)

<i>DS</i>	C13	Matsuda, M. et al., "Involvement of Mannan Binding Protein with crisis and progression of IgA nephrosis," <i>Journal of Nephrology Association of Japan</i> , 39(3): 235 (1997). (Japanese with English abstract translation)
<i>DS</i>	C14	Nepomuceno, R. R. et al., "cDNA Cloning and Primary Structure Analysis of ClqR( <sub>P</sub> ), the Human Clq/MBL/SPA Receptor That Mediates Enhanced Phagocytosis In Vitro," <i>Immunity</i> , 6(2):119-129 (February, 1997).
<i>DS</i>	C15	Sastry, K. et al., "The Human Mannose-binding Protein Gene: Exon Structure Reveals its Evolutionary Relationship to a Human Pulmonary Surfactant Gene and Localization to Chromosome 10," <i>J. Exp. Med.</i> , 170:1175-1189 (October, 1989).
<i>DS</i>	C16	Sumiya, et. al., "Molecular basis of opsonic defect in immunodeficient children," <i>Lancet</i> , 337: 1569-1570 (June, 1991).
<i>DS</i>	C17	Sumiya, et. al., "Mannose-binding protein, genetic variants and the risk of infection," <i>Q. J. Med.</i> , 89: 723-726 (1996).
<i>DS</i>	C18	Super, et. al., "Association of Low Levels of Mannan-binding Protein with a Common Defect of Opsonisation," <i>Lancet</i> , 2: 1236-1239 (November, 1989).
<i>DS</i>	C19	Suzuki et al., "Cloning and Sequencing of a cDNA Coding for Bovine Conglutinin," <i>Biochem Biophys Res Commun</i> , 191/2, 335-342 (1993).
<i>DS</i>	C20	Suzuki, et al., "Characterization of Recombinant Bovine Conglutinin Expressed in a Mammalian Cell," <i>Biochem. Biophys. Res. Commun.</i> , 238: 856-862 (1997).
<i>DS</i>	C21	Taylor, M. E. et al., "Structure and evolutionary origin of the gene encoding a human serum mannose-binding protein," <i>Biochem J.</i> , 262: 763-771 (1989).
<i>DS</i>	C22	Thomas, et al., "Mutation of gene for mannose-binding protein associated with chronic hepatitis B viral infection," <i>Lancet</i> , 348: 1417-1419 (November, 1996).
<i>DS</i>	C23	Uemura, K. et al., "Correlation between Structure and Function of Calcium Dependence Animal Lectin on Host Defense," <i>Jikken-Igaku</i> , 13(18): (1995). (Japanese with English abstract translation)

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)			
BS	C24	Wakamiya, N. et. al., "The Mannose Binding Protein and Conglutinin in Bovine Serum Have a Antiviral Activity Against Influenza Virus," <i>Glycoconjugate Journal</i> , 8: 235 (1991).	
BS	C25	Wakamiya, N. et. al., "Isolation and Characterization of Conglutinin as an Influenza A Virus Inhibitor," <i>Biochem. Biophys. Res. Comm.</i> , 187: 1270-1278 (September, 1992).	
BS	C26	Wakamiya, N. et. al., "Anti-Viral activity by Collectin," <i>Rinsho-Meneki</i> , 29(4): 508-513 (1997). (Japanese with English abstract translation)	

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Substitute for form 1449A/PTO				<i>Complete if Known</i>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				Application Number	09/763,712
				Filing Date	May 4, 2001
				First Named Inventor	Nobutaka Wakamiya
				Art Unit	1632
				Examiner Name	Peter Paras, Jr.
Sheet	1	of	1	Attorney Docket Number	
19036/37157					

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<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See attached Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
DS	C27	Tan et al., "Improvements on the Purification of Mannan-Binding Lectin and Demonstration of its Ca <sup>2+</sup> -Independent Association with a C1s-Like Serine Protease," <i>Biochem. J.</i> 391:329-332 (1996).		

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